

Attachment No. 4

Loading Emissions

MERIT ENERGY COMPANY  
 ROBERT DRISCOLL "A" BATTERY  
 DUVAL COUNTY, BENAVIDES, TEXAS  
 PERMIT BY RULE FILING

Storage Tank and Loading Emissions

<u>Storage Tank VOC Emissions from E&amp;P Tanks Program</u>	<u>Pounds per year</u>	<u>Tons per Year</u>	<u>Lbs per Hour</u>
T-1	2568.99	1.2845	0.2933
T-2	2568.99	1.2845	0.2933
T-3	2568.99	1.2845	0.2933
T-4	2196.51	1.0983	0.2507
T-5	2133.47	1.0667	0.2435
<b>Total Emissions</b>	<b>6.0185</b>	<b>1.3741</b>	

Loading Emissions

<u>Sales</u>	<u>True Vapor Pressure (P)psia</u>	<u>Vapor Molecular Weight (M)</u>	<u>Oil Temperature (T) Degrees R</u>	<u>Loading Losses (lbs/1,000 gal)</u>	<u>VOC Loading Emissions (tons/yr)</u>
Tank	Volume (Q) mbbis/yr	Saturation Factor (S)			
TANKS	72.05	0.6	5	50	508
					3.679133858
					5.566713484

$$\text{Loading Losses (lbs/1,000 gal)} = \frac{12.46S^*P^*M}{T} \quad (\text{AP42 Section 5.2, Equation 1})$$

$$\text{Loading Emissions (tons/year)} = \frac{\text{Loading Losses (lbs/1,000 gal)} * Q * 42 \text{ gal/bb}}{2,000 \text{ lb/ton}}$$

Degress Rankine = Degress F + 460